DOCUMENT RESUME

ED 125 192 EC 090 426

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TITLE Developing and Validating a Training Program for Special Education Resource Teachers (SERTS).
PUB DATE Apr 76
NOTE 28p.; Paper presented at the Annual International Convention, The Council for Exceptional Children (54th, Chicago, Illinois, April 4-9, 1976) ; Not available in hard copy due to marginal legibility of original document

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Exceptional Child Education; *Handicapped Children; *Performance Based Teacher Education; *Program Descriptions; Program Development; *Program Evaluation; *Resource Teachers; *Special Education Teachers; Teacher Attitudes

ABSTRACT

Reported on are the procedures used to analyze the content validity of a job or program function approach to training special education resource teachers (SERTS). A model for making program decisions is noted to include five data collection phases: problem selection (describing numerically the difference between the referred student's actual and desired behavior); program selection (selecting and testing a variety of alternative programs); program operationalization (determining whether the program is being implemented as planned); program improvement (holding on to program plans which succeed in bringing about meaningful changes while dropping unsuccessful plans); and program certification (evaluating the success of the program in achieving goals). It is noted that trainees are evaluated regularly to determine their mastery of specific actions, and that individual program modifications are made based on such evaluations. The results of a survey to assess the perceived importance of program activities to 38 trainees are summarized. Included are tables on the model for data based program modification and on the survey of SERTS trainees. (SB)

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DEVELOPING AND VALIDATING A TRAINING PROGRAM FOR SPECIAL EDUCATION RESOURCE TEACHERS (SERTS)

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Developing and Validating a Training Program

for Special Education Resource Teachers. (Serts)

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The purpose of this paper is to trace the derivation and validation of a set of training activities for special educators engaged in pre-service or inservice training in resource systems. Recent litigation by handicapped persons and their families has led to a series of court decisions affirming the rights of handicapped persons to equal educational opportunity. Prompted by these court decisions legislation at the federal and subsequently at the state and local level has mandated that, to the greatest extent appropriate, placement decisions for handicapped students insure adherence to the doctrine of "Least Restrictive Alternative." What is implied by these decisions is, that unless a sufficient case can be made for an alternative educational environment which meets the requirements of due process under the law, the environment which is least restrictive for the individual handicapped student is the regular educational program.

The implications of these developments for training of both special and regular educators are clear. If the complex array of needs of handicapped children of varying levels of severity are to be accomodated within a regular education system, programs for handicapped students must be developed and continuously evaluated in terms of desired and required performance on regular class curriculum, rather than in terms of the student's handicapping label. Background information on the rationale for mainstreaming, as well as the derivation of due process regulations and the doctrine of Least Restrictive Alternative must be provided to the regular educator by the special educator,

as a necessary framework within which to place the changes which are occurring in the educational programs for handicapped students in the schools. The special educator must also be supportive of the regular educator in developing programs for individual handicapped students which meet their unique requirements within the context of the regular education program. In many instances performance of such tasks represents a major role change for special educators. The special class or clinical teaching model in which most special educators have been trained is not particularly relevant to the problem solving and decision making model which support regular class teachers and the handicapped students they are serving.

What is equally apparent in reviewing the literature is, that with a few notable exceptions (Lilly, 1971; Deno, 1973; Fox, 1973; Schwartz, 1974; Valeski, 1974) there is a paucity of reported developments focusing on useful procedures for training special educators to function in such a non-categorical supportive role to handicapped students within regular programs. Most training programs still appear to reflect the training institutions' commitment to a particular professionally defined clinical model (Schwartz, 1974; Blumberg, 1975). Procedures generated are primarily on the basis of the 'best' judgment of teacher trainers, the expert opinion of University faculty in special education and criteria of professional organizations and state accrediting organizations (Strauch, 1974; Gruber, 1975).

In addition to an apparent lack of sensitivity to current practices for educating handicapped students, a frequent criticism of the expert opinion approach to the derivation of useful procedures for training is the lack of empirical validation that the procedures so specified have any direct relationship to the improvement of performance for students (Shores, Cegleka, & Nelson, 1973; Flanders, 1974; O'Neill, 1974). Where student performance changes have

been validated, there is little research evidence as to which instructional procedures, if any, actually can be credited with having brought about the change. As a result considerable energy may be expended training teachers to use techniques which are as much the result of superstitious belief as to their appropriateness, as they are the result of careful and empirical validation of their importance to instruction (Hammil, 1975; Jenkins, 1976)

An alternate method to the derivation of training activities is one which assumes a job or program function approach, rather than a person or qualities approach. A job functions approach attempts to identify training needs by careful analysis and observation of actual system requirements for job performance. The assumption is that once individual elements or job functions have been identified, training on these requirements will provide greater assurance of subsequent satisfactory role performance (Mager & Beach, 1967). Content validity is established by a direct analysis of the system requirements for which training is to be developed.

Derivation of Procedures

The procedures we have used to analyze system requirements for resource programs are based on this approach. Observation of resource programs and the teachers in those programs (Frequently called Special Education Resource Teachers, or SERTS) yielded information which suggested that in addition to providing direct service to handicapped students there were system requirements for the SERT to function as a problem solver, decision maker and evaluator as it related to programs for handicapped students in regular class programs. Within the resource system procedures were being implemented which were primarily evaluative and decision making in nature.

Klein (1971) has defined educational evaluation as the process of

selecting, collecting and analyzing information in order to decide among alternative courses of action as a means of improving programs. In the model he proposes five evaluation phases provide the data for making program decisions. (See Table 1).

Insert Table 1 about here

Initial assessment activities lead to selection of goal areas to be attacked or problem selection . Program planning activities lead to program selection. Implementation evaluation leads to decisions as to whether the program is being operationalized as planned. Progress and outcome evaluation activities provide the information to the decision maker regarding needed program improvements and appropriateness as to program termination and certification.

In a resource system the decision areas focus on questions related to improving programs for handicapped students in regular class programs. (see Table 2). In the role of problem solver and decision maker, usually

Insert Table 2 about here

faced with more students than there are services, the resource manager is continually faced with collecting data to sort out answers to questions such as: What prompted the referral? What programs will be least restrictive yet effective? Is the program being implemented? Does the program appear to be moving in the right direction? Has the problem been solved? The data collection activities are implemented to find solutions to these questions. (See Table 3)

Insert Table 3 about here

Each data collection phase includes measurement, evaluation, consultation and training activities as major process components in achieving problem solution (See Table 4).

Insert Table 4 about here

When placed into a matrix form these components represent the contextual framework for resource system activities as required in the field.

Insert Table 5 about here

Each cell of the matrix contains a subset of questions which cue a set of activities during that particular program phase. (See Table 6)

Description of Program Phases

The definition of exceptionality implied by these procedures is a combination of the ecological perspective (Rhodes, 1971) and the deviance perspective. The ecological view implies that as much attention should be given to evaluating the requirements and desires of the culture as is given to evaluating the behavior of the referred student. The deviance perspective implies that the behavioral development of the individual is significantly different from his peers. Both perspectives influence the problem selection decision of phase one. Data collection activities are directed toward numerically describing the magnitude of difference, if any, between the actual academic and social behavior of the referred student and the behavior desired from him by the significant persons in his home and school life. The academic and

social behaviors of the referred student must be considered exceptional enough in either or both perspectives to warrant special education intervention.

Once the child has been identified as eligible for service, the program selection decision emphasizes the point that no problem is ever a single solution problem. Instead, a variety of alternative solutions can be proposed, each of which can be tested, if the program selected initially proves to be less successful than desired. To the regular classroom teacher for whom the resource system has been developed, these alternatives provide flexibility, as well as a sense of optimism, that a successful program is possible even if not at the first try. Additionally, in the program selection process shared responsibility for children's programs is assumed. Greater possibility of due process protections for students is assured. Attention is given in the system to public identification, in writing, of the program selected and the persons responsible for implementing that program.

During program operationalization the decision making process focuses on whether the program is being implemented as planned. Too often a true test of a program is not made because important aspects of the program are not implemented by those responsible for doing so. Monitoring this aspect of the program is a crucial component of a successful resource system.

Decisions during the program improvement phase are based on evaluation of data collected during implementation of the program plan. Only those program plans which succeed in bringing about meaningful changes in performance and progress survive, while unsuccessful changes drop out. The net result of such an approach is the construction of a program which is cumulative in its effect on problem solution.

The final decision of program certification reveals whether the program plan has been successful in achieving goals. Two types of information are relied upon in decision making.

1. Data revealing that the performance discrepancy identified during problem selection has been completely reduced.

2. Data that the program as currently implemented by the individual's regular classroom teacher will achieve this goal by the end of the school year.

As during all other phases of the program, evaluation activities rely upon time-series data which has been collected all through the program, beginning with problem selection, to make judgements as to whether or not the program is working and ultimately to make decisions about whether the program has been successful. It is this reliance on daily, weekly and monthly collection of time-series data through all phases of program development that prompts the term Data Based Program Modification. Resource system functions, involving as they do, a number of different persons in the provision of service to children, must rely almost exclusively on an objective, pre-determined set of criteria for evaluating performance and making decisions regarding program changes. Using a time series data base for these decisions assures all the parties involved that the agreed upon goals are being acted upon, and provides continuity from one phase of program development to another. This continuity contrasts sharply with systems for modifying programs which rely on measurements of performance which are not related to actual classroom performance (such as those measures frequently made during individual standardized tests). These tests are often followed by teacher-made pre and posttests during program modification and again may be different from measures obtained at the end of a program. As we all have observed it is not uncommon for special education programs to be envoked after eligibility is determined

by school psychologists or other professionals independent from the educational setting; for a child then to be served by special educators using their own informal diagnostic assessment procedures, and for those special educators to use standardized achievement tests different from those administered by the school psychologists, and different from previous formal assessment procedures to determine the child's achievement at the end of a program (Lovitt, et al., have discussed these problems elsewhere, 1970). The data based procedures proposed here use the same data to make program modification decisions at all points throughout the program improvement process.

Development of Training Activities

The questions within each cell in the matrix form the basic elements of the resource system training program. Each question generates specific actions, many of which require development of materials. A sequence of these actions for consultation during initial assessment is presented in Table 6. A similar set has been generated for each cell and in their entirety comprise the activities for all SERT trainees.

Insert Table 6 about here

A visual representation of the same sequence of actions is presented in Figure 1. A similar flow chart has been generated for all phases of data collection and decision making in the resource system.

Insert Figure 1 about here

Trainees evaluate their skills in performing these actions with a training supervisor at program entry level. Evidence is subsequently presented to a

peer team, as required actions are completed at field based training stations or within the trainees home school. The basic mastery criteria is as follows:

> Given a teacher who has requested assistance in the development of program modifications for an individual or group of handicapped students, the trainee will present evidence in the form of case studies, graphs and materials that the actions required to assess, plan, implement, evaluate, and certify that program have been satisfactorily completed, as judged by student performance changes, peer team and training supervisor.

Each trainee keeps a weekly progress graph on which mastery of specific actions is plotted. At a glance, the training supervisor and the peer team can assess the success of training implementation activities and determine if an intervention is necessary to increase rate of progress or performance. Thus the procedures which we advocate for use with children are modeled in the training program as well.

In summary, the basic point of view presented is that in a resource system individual program modifications are established when discrepancies in academic and social development are identified by people who occupy a significant place within the life space of individual students. Program modifications require that discrepancies which have been identified be measured and that the effect of program modifications in reducing those modifications be continually monitored. While we accept the view that resource teachers acting in support of children may at some time be responsible for the instruction of those children, the primary goal for resource teachers should be to "get out of business" with the child. When performance discrepancies have been reduced to the point where they are no longer considered to be important, the point has been reached when program modification can be certified as complete or successful. Certifying

a program as satisfactorily completed, like identification of important problems, involves both objective and subjective judgments.

We believe that at the point of program planning commitments regarding satisfactory program completion should be obtained by all responsible parties including general education staff, parents, and special educators, and that the agreements be established in writing as a part of the original planning contract. If this is done, then individual values regarding what are the problems and how important they are will be negotiated well before consideration of whether or not the program has been satisfactorily completed. A contract then stands as the basis for negotiating eventual program certification along the subject di..sions which are always a part of program modification decisions. Our experience has been that the more explicit the contractual agreements are at the point of initial program modification the less difficulty and conflict exist at the point of program termination. No doubt it is impossible to avoid some disagreement on some occasions; however, formalizing the agreements prior to the time when decisions must be made certainly helps to reduce whatever conflict might arise.

Perhaps also a final note regarding the role of desired perfo..mance in making program certification decisions should be made here. While the tendency in establishing programs is always to act as if performance discrepancies are reduced by changes in the actual performance of the individual, we believe that many problems can be solved more quickly and simply by renegotiating desired performance. To do so, requires that these individuals responsible for the development of children within educational programs be somehow persuaded that changes in desired performance are reasonable and called for. If our schools are to be pluralistic in the same sense that we presume our American society to be, then we must be open to alternative developmental goals as well as to alternative programs. To require all children to learn to do or to become the

same (that is, to have the same desired performances for all children) is, from this viewpoint, inappropriate. The implementors of resource systems should assume as their responsibility making an impact on people's desires as well as on children's programs.

Program Validation

There are two dimensions which must be addressed when procedures to validate a training program are implemented. One is an assessment of the perceived importance of the activities to persons functioning in the system for which training has been organized, in order to verify the accuracy of the system analysis. The other is an assessment of the program trainee's capacity to perform to the expectations required in the system for which training has been organized, in order to assess what effect training has had on the performance of trainees being served.

Each of these dimensions must be assessed at an appropriate point in program development. Value questions are as integral a component of problem selection and program selection in a training program for resource teachers as they are in development of program plan for a handicapped student. If the problems and programs which have been pinpointed and selected for training are not valued by those who function in the system, it is difficult to imagine success in program implementation. Several activities to assess this dimension will be reported here.

1. During the first year of problem selection an initial set of fourteen areas of resource system activity were rated as to frequency of performance, importance, difficulty and training needs by all the then current, full time employed personnel functioning as Special Education Resource Teachers in the Minneapolis Public Schools, as well as by six lead teachers whose primary function was to assist resource teachers in development of programs of instruction for handicapped students placed in regular class programs (K-12). (O'Neill, 1974).

2. During the second year of problem selection all program trainees[1] were asked to complete a survey which asked for verification that particular activities were requirements of their resource programs. Responses to questions were of a Yes/No variety and in some instances percentage of time spent in these activities was required.

3. For a three week period during the third year of problem selection, program trainees tallied the number of times per day they engaged in each program process during a regular school day.

Results:

The results of these procedures were utilized in development and modification of the program matrix and training activities in their present form. (See Table 5 and 6)

4. All present and former SERT trainees (N=38) were surveyed as to the importance of sixty-five questions to their work as SERTS and the frequency with which their work required them to answer these questions. The two questions and the responses possible were as follows:

a) How important is this question in your job as a SERT?

Very Important (V.I.)
Somewhat Important (S.I.)
Little Importance (L.I.)

b) How often are you asked to answer this question in your work?

Daily Weekly Less than Weekly (LTW)

Responses were tallied and percentages were calculated for all questions as they were rated for importance and frequency. The percent of no responses (N.R.) was also calculated.

Results:

27 surveys were completed. Four of these were invalidated as the respondents were not presently working in a resource system.

[1] 75% of our trainees are practicing resource teachers. 25% serve in practicum sites where resource systems are in operation.

A summary of this data will be presented here. Table 7 summarizes the data for the major questions in the matrix. Table 8 presents the questions rated as important by more than 80 per cent of the respondents.

Insert Tables 7 and 8 about here

1) Three questions were rated as very important by 91% of the respondents.

2) Eighteen questions were rated as very important by more than 80% of the respondents.

3) Thirteen questions were rated as very important by more than 70% of the respondents.

4) Thirteen questions were rated as very important by more than 60% of the respondents.

5) Nine questions were rated as very important by more than 50% of the respondents.

6) Eight questions were rated as very important by more than 40% of the respondents.

7) Three questions were rated as very important by more than 30% of the respondents.

8) Training questions were rated lower than any other set of process questions.

9) Program planning questions received the highest ratings (91%)

10) Of the 18 questions which received ratings of more than 80%, 12 related to problem selection and program certification and six related to program planning and progress evaluation. (See Table 8)

11) Twenty questions did not receive any ratings for daily frequency of response.

12) The highest rating for weekly frequency was 56% for the question, "What alternatives are proposed to solve the problem?" This is a planning

question.

13) Sixteen questions received ratings of between 30 and 40% for weekly frequency.

14) Thirty questions received ratings of more than 50% for less than weekly frequency.

15) The lowest rating for weekly frequency was 4% for the following three questions. "Is measurement data being plotted on graphs?" "Are there other persons who can be trained to recommend further program modifications?" "Can other evaluate implementation?" Two of these are training questions.

Summary of Results

The majority of SERTS surveyed rated all of the questions as being very or somewhat important to their work. The majority of SERTS surveyed indicated that they answered a majority of these questions less than weekly. Training questions received the lowest ratings and program planning questions received the highest ratings. Problem selection and program certification questions received the greatest number of ratings over 80%.

Discussion

While the majority of SERTS surveyed expressed the opinion that the questions generated in the matrix were very important, there is less evidence that the questions were being answered as frequently as their rated importance might have suggested. We need to further evaluate the reasons for these lower ratings. Additionally we need to interpret the reasons for lower ratings in the area of training and implementation evaluation. In this regard are we actually evaluating performance rather than values? Are these activities valued less because they have not been emphasized in the training program or is the survey reflecting the fact that these activities are not valued very highly in most resource programs. We need to survey teachers working in resource systems who have not been in the training program and evaluate their

responses, as to similarities and differences, before drawing any final conclusions as to reasons for this discrepancy. We also need to devise a survey instrument which will be more sensitive to frequency of performance as it corresponds with school year activities.[1]

Once we have determined that our analysis of the system is valuable and accurate and have eliminated questions which are judged to be least valuable, our next step will be to empirically validate the importance of each action to improved student performance; once again discarding those actions which do not lead to increased progress and retaining those for which a definite correlation with improved performance can be demonstrated. We have some early evidence that data of this type can be collected but we need further studies before this data is reported. Beyond this we are faced with designing measures to validate the performance dimension of the program. Our experience to date has been highly favorable, with our trainees being placed in positions of leadership and responsibility, but we must find more formal means of making these assessments.

Finally, our experience in developing the SERT program has made us keenly aware of the need to maintain a dynamic interaction with a field based program if the training we provide is to be a meaningful and useful experience for the trainees, as well as for the students and teachers the trainees will subsequently serve. The process of selection, planning, implementing, adjusting and certifying programs is as critical to the development of teacher training as it is to the development of programs for children. As we increase our problem solving skills and become more adept and precise in validating our program we expect to make even greater gains in serving handicapped children in regular school programs.

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[1] For example most problem and program selection decisions occur in the fall and program certification decisions occur in the spring.

Table 1

THE FRAMEWORK FOR DATA BASED PROGRAM MODIFICATION

	PROGRAM PHASE
[illegible]	[illegible] NEED ASSESSMENT
[illegible] SELECTION	[illegible] PROGRAM PLANNING
PROGRAM OPERATIONALIZATION PROGRAM IMPROVEMENT	[illegible] IMPLEMENTATION EVALUATION (PROCESS INTERVENTION) [illegible] PROCESS EVALUATION (PROCESS INTERVENTION)
[illegible]	[illegible] OUTCOME EVALUATION (OUTCOME INTERVENTION)

Elements of this model are based on the evaluation model developed by the Center for the Study of Evaluation, UCLA.

Table 2

FIVE DECISION AREAS:
DATA BASED PROGRAM MODIFICATION

PROBLEM SELECTION	What are the problems that provided impetus for referral and imply the need for program modification?
PROGRAM SELECTION	What program modification plan is likely to be least restrictive and yet effective in solving the problem(s) ?
PROGRAM OPERATIONALIZATION	Is the agreed upon program modification being implemented as planned ?
PROGRAM IMPROVEMENT	Does the program modification as implemented appear to be moving us to problem(s) solution ?
PROGRAM TERMINATION	Was the problem(s) solved through program modification ?

Table 3

FIVE PHASES OF DATA BASED PROGRAM MODIFICATION

DECISION AREA	
PROBLEM SELECTION	**Initial Assessment** for purposes of: (a) Clarifying who holds expectations for individual performance which are not being met. (b) Assessing the discrepancy between environmental expectations for performance and actual level of performance. (c) Establishing the importance of the problem(s) (discrepancies) (d) Making program eligibility decisions. (e) Establishing a baseline for evaluating the success of subsequent program modifications.
PROGRAM PLANNING	**Program Planning** for purposes of (a) Developing long range and short range instructional goals. (b) Planning alternative strategies for achieving goal. (c) Recommending appropriate administration arrangements.
PROGRAM OPERATIONALIZATION	**Implementation Evaluation** for purposes of: (a) Determining whether the planned program (strategies and administrative arrangements) is being correctly and completely implemented.
PROGRAM IMPROVEMENT	**Progress Evaluation** for purposes of: (a) Appraising progress on short and long term objectives. (b) Revising programs that are not, apparently, achieving the greatest effect on performance.
PROGRAM CERTIFICATION	**Outcome Evaluation** for purposes of: (a) Establishing accountability for success of the interventions in reducing the discrepancy established during initial assessment.

FOUR BASIC PROCESSES OF DATA BASED PROGRAM MODIFICATION

MEASUREMENT	Of Student performance in order to provide an objective, precise and quantitative description for use in evaluation.
EVALUATION	Of collected data for purposes of making program modification decisions.
CONSULTATION/ COMMUNICATION/ COLLABORATION	With Classroom teachers, parents, students, and other professionals during program phases; problem identification and selection; plans for service; satisfaction with program progress and program outcomes.
TRAINING	Of Regular class teachers; aides; volunteers; peer and cross age tutors to implement and manage data based program modifications.

Table 5

A MATRIX FOR IDENTIFYING SPECIAL EDUCATION RESOURCE TEACHER (SERI) ACTIVITIES IN DATA BASED PROGRAM MODIFICATION

PROGRAM PHASE	MEASUREMENT	EVALUATION	COMMUNICATION COLLABORATION CONSULTATION	TRAINING
PROBLEM SELECTION INITIAL ASSESSMENT	• What is the desired performance? • Are there desired performance expectations for academic and social behaviors? • What is actual performance? • What is student's present performance in these academic and social behaviors? • What is the discrepancy?		• Are the problems those the teacher, student, parent, others identify? • Are they shared problems? • Should others be consulted? • What are priorities?	• Are there others who can be trained to collect discrepancy data? • Are there materials needed to train others to collect data?
PROGRAM SELECTION PROGRAM PLANNING	• What goals will be met? • What and how often will data be collected?	• What resources are available? • What existing rules have been identified? • What program changes are proposed?	• Have the program plans met the expressed needs of the referrer, student, parent, and other interested persons? • Have all parties been involved in planning? • Have all parties accepted plan?	• Are there others who can be trained to develop program plan? • Are there materials needed to train others to develop program plan?
IMPLEMENTATION-EVALUATION IMPLEMENTATION EVALUATION	• Are actions being kept for long consecutive school days? • Are program modifications made on graphs? • Is data graphed daily/weekly/monthly?	• Are future program changes consistent with data? • Are future program changes consistent with data?	• Are plans being implemented as expected by referrer, student, parent and other interested person? • Are all parties aware of program modifications? • Are all parties satisfied?	• Are there others who can be trained to evaluate program implementation? • Are there materials needed to train others to evaluate implementation of plan?
PROGRAM IMPROVEMENT PROGRESS EVALUATION	• Is there any information on the minimum desired performance and/or rate of progress for each intervention period? • Is there any information on trend and stability of prior performance data with which to compare present performance?	• Is there sufficient information to make decisions about program improvement? • Are there enough data points to make decisions about progress?	• Can information collected on individuals be useful to others? • Are all interested parties informed of progress? • Will future program modifications be recommended?	• Are there others who can be trained to evaluate progress and make program modifications? • Are there materials needed to train others to evaluate progress and make program modifications?
PROGRAM OUTCOME EVALUATION	• What is the desired performance/progress discrepancy? • How many program objectives have been achieved?	• Is program effectiveness currently acceptable? • Has program been successful in achieving objectives?/in reducing discrepancies?	• Has program been successful in satisfying the need of all interested parties? • Are all parties aware and satisfied with program outcome?	• Are there others who can be trained to evaluate outcome? • Are there materials needed to train others to evaluate outcome of program?

Table 6

PROCESS : CONSULTATION

DECISION AREA : PROBLEM SELECTION
PROGRAM PHASE : INITIAL ASSESSMENT

QUESTIONS TO BE ANSWERED	MATERIALS NEEDED	REQUIRED ACTIONS
Who owns the problem?		
Are the problems those the teacher identifies?	Referral form (1) Procedure for arranging conference with teacher (2) Format and questions for referrer conference (3)	Arrange and conduct conference with teacher
Are the problems those the student identifies?	Procedures for arranging conference with student (4) Format and questions for conference with student (5)	Arrange and conduct conference student
Are the problems those the parent identifies?	Procedures for arranging conference with parent (6) Format and questions for parent conference (7)	Arrange and conduct conference with parent
Are they shared problems?	Procedures for arranging group staffing (8) Format and questions for joint staffing	Arrange and conduct staffing with group
Are the problems those the school principal and other professionals identify?	Referral form Procedures to make contact	Obtain information from appropriate agency and professional staff
Are there other professionals who should be consulted?	A list of sources available for consultation	Arrange consultation where appropriate
Do those who identify a problem have priorities as to which problems are most important?	Format for determining priorities (Priority ranking sheet) (9)	Ask appropriate parties to complete form
What problems have been identified?	Case report summary (10)	Complete form

Expert Competencies in Data Based Program Modification:
S. Deno and P. Mirkin. University of Minnesota. 1976.

TABLE 7

THE IMPORTANCE OF MAJOR QUESTIONS IN DATA BASED PROGRAM MODIFICATION AS RATED BY SERTS

S. DENO AND P. MIRKIN, UNIVERSITY OF MINNESOTA, 1975

N = 23

KEY:

V.I. = Very Important
S.I. = Somewhat Important
L.I. = Little Importance
N.R. = No Importance
L.T.W. = Less than Weekly

DECISION AREA / PROGRAM PHASE	MEASUREMENT				EVALUATION				COMMUNICATION COLLABORATION CONSULTATION				TRAINING			
PROBLEM SELECTION — INITIAL ASSESSMENT	Is there a discrepancy between desired and actual performance?				Is the student eligible for service?				Who owns the problem?				Can others implement intake assessment?			
	V.I.	S.I.	L.I.	N.R.	V.I.	S.I.	L.I.	N.R.	V.I.	S.I.	L.I.	N.R.	V.I.	S.I.	L.I.	N.R.
	.739	.130	.043	.043	.826	.043	.043	.087	.739	.087	.087	.087	.565	.304	.043	.087
	DAILY	WEEKLY	L.T.W.	N.R.	DAILY	WEEKLY	L.T.W.	N.R.	DAILY	WEEKLY	L.T.W.	N.R.	DAILY	WEEKLY	L.T.W.	N.R.
	—	.261	.522	.217	—	.348	.391	.261	.174	.174	.304	.348	—	.174	.565	.265
PROBLEM SELECTION — PROGRAM PLANNING	How will effectiveness of program plan be measured				What alternative programs are proposed?				Does the program plan meet the expressed needs of the referrer, student, parent, and other interested persons?				Can others plan program?			
	.696	.261	—	.043	.913	—	.043	.043	.913	.043	—	.043	.565	.261	—	.087
	.217	.174	.391	.217	.043	.565	.174	.217	.087	.304	.391	.217	—	.261	.478	.261
PROGRAM IMPLEMENTATION — IMPLEMENTATION EVALUATION	Is performance being measured?				Is program plan being implemented as proposed and accepted?				Is program plan being implemented as expected by referrer, student, parent and other interested persons				Can others implement plan?			
	.739	.174	.043	.043	.783	.174	—	.043	.783	.174	—	.043	.522	.304	.043	.130
	.217	.130	.391	.261	.130	.348	.304	.217	.130	.348	.304	.217	.087	.043	.565	.304
PROGRAM IMPLEMENTATION — PROGRESS EVALUATION	Is the program as implemented producing cumulative benefits for the student?				Is the overall discrepancy being decreased?				Can information gathered on strategies be useful to others?				Can others evaluate progress?			
	.570	.043	—	.087	.826	.130	—	.043	.652	.261	—	.087	.522	.304	.087	.043
	.130	.304	.261	.304	.087	.304	.348	.217	.087	.217	.478	.217	—	.174	.565	.261
PROGRAM CERTIFICATION — OUTCOME EVALUATION	What is the present performance/progress discrepancy?				Should the program as presently planned be terminated?				Has program been successful in satisfying the need of all interested parties?				Can others evaluate outcomes?			
	.826	.087	—	.087	.826	.130	—	.043	.826	.130	—	.043	.478	.435	—	.087
	—	.217	.522	.261	—	.261	.348	.217	.043	.130	.565	.261	.043	.174	.522	.261

IMPORTANCE

HOW OFTEN PERFORMED

Table 8

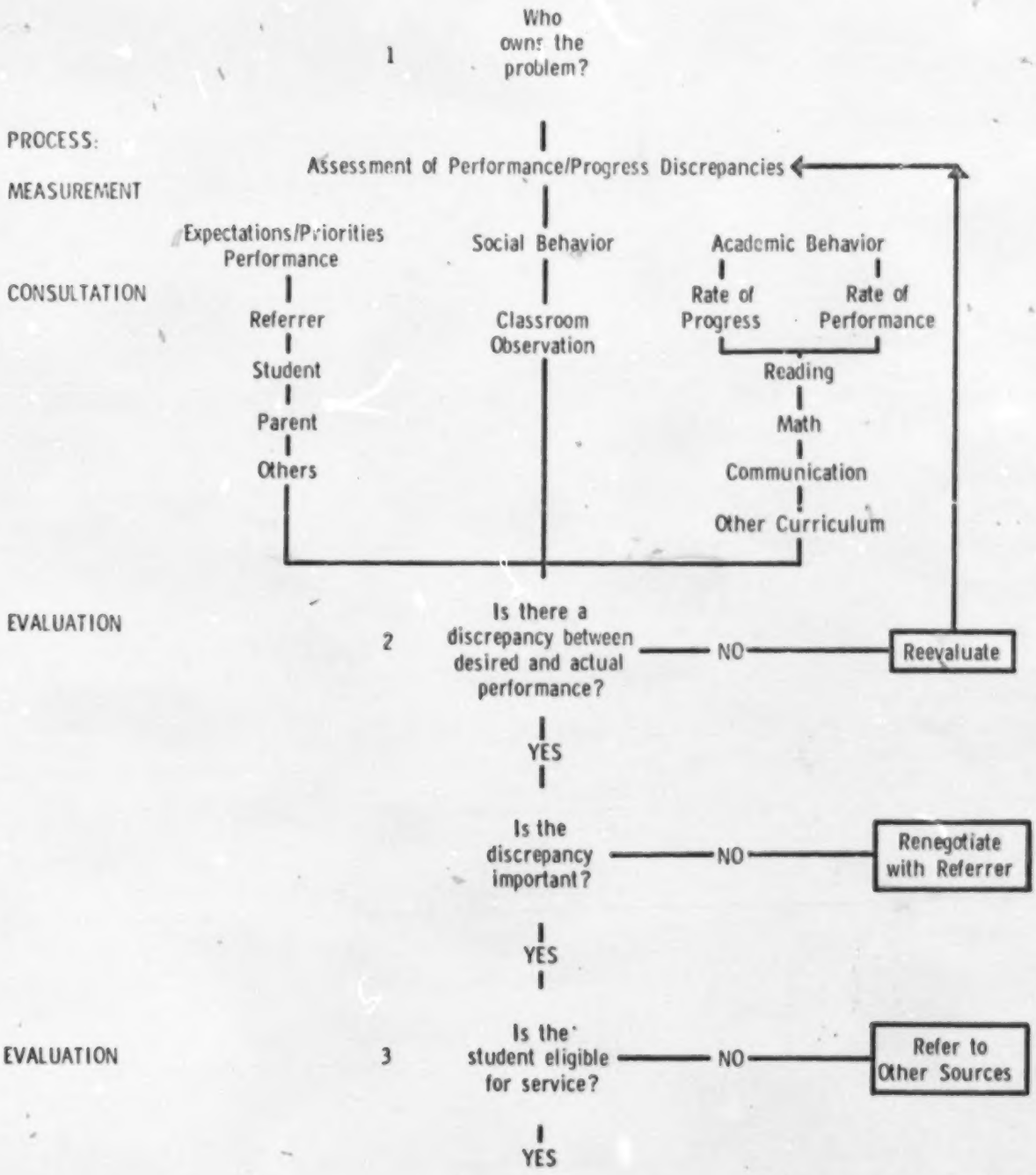
QUESTIONS RATED AS IMPORTANT BY MORE THAN 80% OF SERTS SURVEYED

DECISION AREA / PROGRAM PHASE	PROCESS: MEASUREMENT	EVALUATION	COMMUNICATION COLLABORATION CONSULTATION	TRAINING
PROBLEM SELECTION INITIAL ASSESSMENT	Are there desired performances for academic/social behavior? .87 .83 What is referred student's performance? .87	Have important discrepancies been identified? .83 Is the student eligible for service? .83	Are the problems those the teacher identifies? .83 Are they shared problems? .87	
PROGRAM SELECTION PROGRAM PLANNING		What resources are available? .91 What discrepancies have been identified? .83 What alternatives are proposed? .91	Does program plan meet the expressed needs of all parties? .91	
PROGRAM OPERATIONALIZATION IMPLEMENTATION EVALUATION				
PROGRAM IMPROVEMENT PROGRESS EVALUATION	Is the program as implemented producing cumulative benefits for the student? .87	Is the overall discrepancy being decreased? .83		
PROGRAM CERTIFICATION OUTCOME EVALUATION	What is the present performance/progress discrepancy? .83	Has program been successful in achieving objectives? .87 -reducing discrepancies? .83 Should program be terminated? .81	Has program been successful in satisfying the need of all interested parties? .83	

Figure 1

DATA BASED PROGRAM MODIFICATION: S. DENO AND P. MIRKIN, University of Minnesota, 1976

DECISION AREA: Problem Selection PROGRAM PHASE: Initial Assessment



References

Arter, J. A. & Jenkins, J. R. Examining the benefits and prevalence of modality considerations in special education. Champaign-Urbana, Illinois: University of Illinois, 1975.

Blumberg, A. Special Education Program Analysis: Term I. West Virginia College of Graduate Studies Institute, 1975. 245 pp. ED104102

Deno, S. & Gross, J. The Seward University Project: A cooperative effort to improve school services and university training. In E. Deno (Ed.) Instructional Alternatives for Exceptional Children, Arlington, Virginia: Council for Exceptional Children, 1973, 104-122.

Deno, S. & Mirkin, P. Data based program modification: A system for integrating handicapped students into mainstream programs. Minneapolis, Minn.: Leadership Training Institute, University of Minnesota, 1976, in press.

Flanders, N. A. The changing base of performance-based teaching. Phi Delta Kappan, 1974, 55(5), 312-315.

Fox, W. L. , Egner, A. N. Paolucci, P. E., Perelman, P. F. & McKenzie, H. S. An introduction to a regular classroom approach to special education. In E. Deno (Ed.) Instructional Alternatives for Exceptional Children, Arlington, Virginia: Council for Exceptional Children, 1973, 22-46.

Gruber, S. E. The development of a conceptual model for competency-guided instructional leadership preparation. Paper presented at American Educational Research Association Annual Meeting, Washington, D.C., 1975. 10 pp. ED105562

Hammill, D. D. & Larsen, S. C. The effectiveness of psycholinguistic training. Exceptional Children, 1974, 41(1), 5-15.

Klein, S., Fenstermacher, G. & Alkin, M. The center's changing evaluation model. Evaluation Comment, 1971, 2,(4), 9-12.

Lilly, M. S. A training based model for special education. Exceptional Children, 1971, 37, 745-749.

Lovitt, T., Schaff, M., & Sayre, E. The use of direct and continuous measurement of evaluate reading materials and pupil performance. Focus on Exceptional Children, November, 1970

Mager, R. F. & Beach, K. Developing vocational instruction. Palo Alto, Calif.: Fearon Publishers. 1967.

O'Neill, A. Identification of special education resource teacher competencies: An assessment of training needs in the Minneapolis School-Based Special Education Program. Plan B Masters Thesis, Minneapolis, University of Minnesota, 1974.

Rhodes, W. C. The disturbing child: A problem of ecological management. Exceptional Children, 1967, 33, 449-455.

Schwartz, L. & Oseroff, A. Welcome to the system: Orientation and guide to the clinical teacher curriculum. Tallahassee: Florida: Florida State University, 1974. 50pp. ED082438

Shores, R. E., Cegelka, P. T. & Nelson, C. M. Competency based special education teacher training. Exceptional Children, 1973, 40(30), 192-197.

Strauch, J. D. A training model for cooperating teachers in special education: Mental retardation. Final Report. Storrs, Conn.: Connecticut University, School of Education, 1974. 239pp. ED095687

Valeski, T. A continuum model for competency based training. The competency based curriculum. 1973. 10pp. ED083706.